

**VAS HTTP INTERFACE
for videoapplications**



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	Preparado por	Revisado por	Aprobado por
Nombre	Samuel Zarza		
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1. OVERVIEW

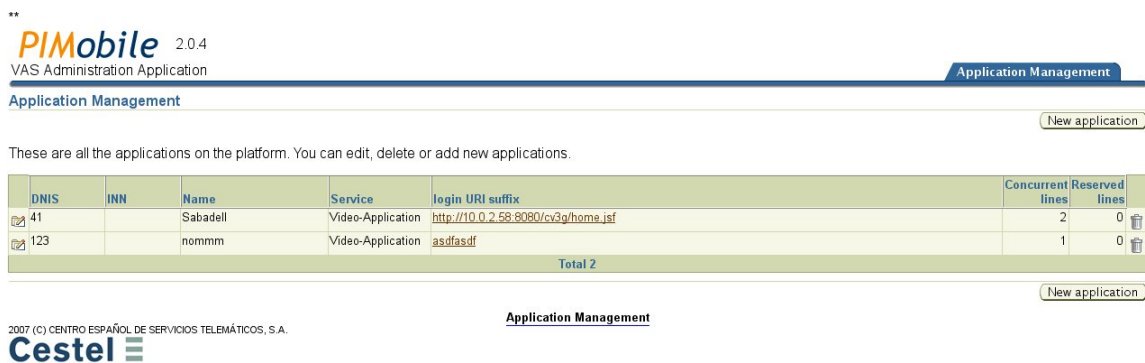
VAS enables you to publish videoapplications¹ (adapted web applications) over a videocall by bringing out to a phone number. In addition, VAS provides a call context to videoapplication so videoapplications can have knowledge of the current call and certain call control.

This documents explain how VAS delivers call context to a videapplication and how videoapplications can communicate and interact with VAS, which is called: VAS web interface for videoapplications.

2. PARAMETERS ON URL'S

With VAS Administration Application you can register new videoapplications filling up the URI prefix and login, logout and ping suffix.

**



DNIS	INN	Name	Service	login URI suffix	Concurrent lines	Reserved lines
41		Sabadell	Video-Application	http://10.0.2.58:8080/cv3g/home_isf	2	0
123		nommm	Video-Application	asdfasdf	1	0
Total 2						

VAS add five parameters to these URI's when calling videoapplications: *ani*, *dnis*, *sessionID*, *host* and *port*.

ani is the header value of "X-CallerId", thus is the identifier caller.

dnis is the header value of "CalledPartyNumber" the number for entry in the aplicaction.

sessionID is the unique identifier for the session

host is the VAS host (use it for communicate with VAS via HTTP interface)

port is the port of the VAS host (use it for communicate with VAS via HTTP interface)

¹ *Videoapplication* concept applies to a web application adapted to VAS, so can be achieved and operated by a phone videocall with all graphic and inputs videocall constraints.

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3. TRANSFER CALL

The use and comands parameters for make a call transfer. For better results, you may provide a URL for the reception of events produced during and after transfer.

3.1.URL

For transfer a call you must do http get invoke the URL:

http://[host]:port/VAS/transfer

3.2.Parámetros

sessionID:

Session identifier in IVP**transferNumber**:

End number by the trasfer is defined. Is required the number has included the uses protocol (H323 or SIP), with this nomenclature:

Number H323: h323:number

Number SIP: sip:user@domain

urlEvent (*Optional*) :

URL for event reception produced in trasfer, Is performed by HTTP GET petition to URL especifies with parameters for the events produced. If unspecified not send events produced.

callerID (*Optional*) :

Indicates the number to be used as a caller to make the transfer. If you do not specify the number that will be used has made the call.

digitEndTransfer (*Optional*) :

Indicates the digit of the phone to be used as a caller to make the transfer. If you do not specify the digit that will be used has made the call.

3.3. Responding to the call

The call may return the following values

400 BAD REQUEST:

Indicates that the parameters are not correct. You can miss a mandatory parameter or is not well-formed. Add description error.

200 OK:

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Indicates that the transfer has been received correctly.

3.4.Events

If the parameter **urlEvent** is specified, On the url be reported different events occurring in the transfer of calls. The notification occurs through implementation of HTTP GET on the specified URL.

The events are transfer as parameters in the call to the url, the fields that are received are as follows:

event:

Indicates the event occurred, can take the following values:

startTransfer : transfer begin

endTransfer : transfer end

errorTransfer : Failed to make transfer

cause:

Is a event description.

3.5.Example

Sequence of petitions - responses in a transfer

Petition

HTTP GET:

```
http://[server]:[port]/VAS/transfer?sessionID=session1&transferNumber=h323:1000
&urlEvent=http://mylistenservice.com&callerID=8220&digitEndTransfer=9
```

Slf the call is transmitted correctly receive a HTTP response HTTP 200 OK, on the contrary detected an error in the parameters, or in service be returned a HTTP 400.

Events

In the example of transfer has entered a URL for events listener, for thus we will see an example for events sent:

Transfer Home

```
HTTP GET: http://mylistenenservice.com?event=startTransfer&cause=transferStart
```

Transfer end

```
HTTP GET: http://mylistenenservice.com?event=endTransfer&cause=transferEnd
```

NOTE: Url to monitoring events can lead parameters, in this case the parameters event y cause will be add to the petitions, for example:

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If urlEvent is as follows: *http://mylistenerurl.com?app=myapplication&debug=1*, the event will send in this way:

`http://mylistenerurl.com?app=miaplicacion&debug=1&event=startTransfer&cause=transferStart`

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4. OUT CALL

It specifies the parameters of use and command to make outgoing calls with interactive content.

4.1.URL

To make an outgoing call must be invoked the URL through HTTP GET:

http://[host]:port/VAS/outcall

4.2.Parameters

ani:

Calling number by the trasfer is defined. Is required the number has included the uses protocol (H323 or SIP), with this nomenclature:

Number H323: h323:number

Number SIP: sip:user@domain

dnis:

Destination number by the trasfer is defined. Is required the number has included the uses protocol (H323 or SIP), with this nomenclature:

Number H323: h323:number

Number SIP: sip:user@domain

url:

URL interactive content to be displayed to make the call

ref:

Referer, This field can be used by applications to send an identifier itself in the outgoing calls

timeout (Optional) :

Indicates the time in seconds that will last call. If you do not specify the call lasts until that occurs completion (hang the Recipient)

dirinfo (Optional) :

Indicates which receive Url events produced in the so-called, for HTTP GET method. This URL can take owners parameters, the system detects this event and builds the URL adapted

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4.3. Responding to the call

The call may return the following values

400 BAD REQUEST:

Indicates that the parameters are not correct. You can miss a mandatory parameter or is not well-formed. Add description error.

503 SERVICE UNAVAILABLE:

Indicates that have exceeded the resources of the service to make the call. Add a description of the error.

200 OK:

Indicates that the transfer has been received correctly.

4.4.Events

If the dirinfo parameter is specified, on the url be reported different events occurring in the transfer of calls. The notification occurs through HTTP GET method on the specified URL

The events are transferred as parameters in the call to the url, Fields that are received are as follows:
event:

Indicates the event occurred, it can take the following values:

call.started : start call.

call.ended : end call

SYSTEM.ERROR : Failed to make call (unrecoverable error)

SYSTEM.BUSY : Failed to make call for the resources

3g.navigation : Navigate in videoapplication

timeout : Ending call because a timeout

ref:

It is the parameter passed as a parameter ref. It is an identifier for the application to manage their own calls

cause:

Provides a description of the event occurred. Faced with an event of this area indicates the navigation digit introduced

data:

Field for the extended data.

4.5.Example

Sequence of petitions - responses in a out call.

Petition

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HTTP GET:

```
http://[host]:[port]/VAS/outcall?ani=h323:1000&dnis=h323:8220&url=http://application.a.ver.com
&ref=1000&timeout=10&dirinfo=http://informe.here
```

Events

In the example of outgoing call has entered the URL for listening events, so this example for events can be sending:

Begin call

```
HTTP GET:
http://informe.here?event=call.started&cause=START_CALL&ref=1000&data=
```

Navigation, push 9 digit

```
HTTP GET: http://informe.here?event=call.started&cause=9&ref=1000&data=
```

NOTE::Url to monitoring events can lead parameters, in this case the parameters event y cause will be add to the petitions, for example:

If urlEvent is as follows: *http://mylistenerurl.com?app=myapplication&debug=1*, the event will send in this way:

```
http://informe.here.com?app=myapplication&debug=1&event=call.started&cause=START_CALL&ref=1000&data=
```

5. HANGUP

It specifies the parameters of use and command to make hangup on call.

5.1.URL

To make a hangup must be invoked the URL through HTTP GET:

```
http://[host]:port/VAS/hangup
```

5.2.Parameters

sessionID:

Session identifier in IVP

delay: (optional)

Seconds after that hangup the session. If delay is not establish indicates that the hanging is immediate.

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5.3.Responding to the call

The call may return the following values

400 BAD REQUEST:

Indicates that the parameters are not correct. You can miss a mandatory parameter or is not well-formed. Add description error.

503 SERVICE UNAVAILABLE:

Indicates that have exceeded the resources of the service to make the call. Add a description of the error.

200 OK:

indicates that the hangup command has been received correctly.

5.4.Examples

Sequence of petitions - responses in a hangup.

Correct Petition

HTTP GET:

`http://[host]:[port]/VAS/hangup?sessionID=0564325768&delay=10`

RESPONSE:

HTTP 200 OK - After 10 seconds session 0564325768 will be hangup.

Correct Petition

HTTP GET:

`http://[host]:[port]/VAS/hangup?sessionID=0564325768`

RESPONSE:

HTTP 200 OK - The session 0564325768 will be hangup immediate.

Incorrect Petition

HTTP GET:

`http://[host]:[port]/VAS/hangup?sessionID=0564325768&delay=100`

RESPONSE:

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HTTP 400 BAD REQUEST OK - Indicates that sessionID don't exist in system.

6. RECORD

It specifies the parameters of use for the command record. The command allows recording videos for later sending a url established

6.1.URL

To make a hangup must be invoked the URL through HTTP GET:

http://[host]:port/VAS/record

6.2.Parameters

sessionID:

Session identifier in IVP

name:

Indicate the name for the file

video: (optional)

Indicate the video codec of the recording. The following options are available:

- h263
- mpeg4

If video option don't be defined indicate that video recording is not required.

audio: (optional)

Indicate the audio codec of the recording. The following options are available:

- aac
- amr

If audio option don't be defined indicate that audio recording is not required.

maxduration:

Indicate the maximum duration for the record in seconds.

delay: (Optional)

Indicate delay to start the record in seconds. If don't be defined indicate that record begin immediate.

ref: (Optional)

Referer, This field can be used by applications to send optional data to receive back in event calls

resolution:

Indicate the resolution of the recording. The following options are available:

- cif

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- qcif

dirinfo:

Indicates which receive Url events produced in the so-called, for HTTP GET method. This URL can take owners parameters, the system detects this event and builds the URL adapted

urlpost: (Optional)

Indicates target url to POST the file record. System will send all the files recorded in to this URL (by HTTP POST) at end call. If not defined the files will be erased when the call finish.

6.3.Responding to the call

The call may return the following values

400 BAD REQUEST:

Indicates that the parameters are not correct. You can miss a mandatory parameter or is not well-formed. Add description error.

503 SERVICE UNAVAILABLE:

Indicates that have exceeded the resources of the service to make the call. Add a description of the error.

200 OK:

indicates that the hangup command has been received correctly.

6.4.Events

If the dirinfo parameter is specified, on the url be reported different events occurring in the record. The notification occurs through HTTP GET method on the specified URL

The events are transfered as parameters in the call to the url, Fields that are received are as follows:

event:

Indicates the event occurred, it can take the following values:

- record.started** : start record.
- record.ended** : end record.
- record.error** : Failed to make record.

ref:

It is the parameter passed as a parameter ref. It is an identifier for the application to manage their own calls

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cause:

Provides a description of the event occurred.

data:

Field for the extended data.

6.5.Example

Sequence of petitions - responses in record command.

Petition

HTTP GET:

`http://[host]:[port]/VAS/record?sessionID=05643563&name=record1.3gp&video=h263&audio=aac&resolution=qcif&ref=1001&maxduration=15&delay=5&ref=1000&dirinfo=http://informe.here`

RESPONSE:

HTTP 200 OK After 5 seconds session 0564325768 will be recorded.

Events

In the example of record has entered the URL for listening events, so this example for events can be sending:

Begin record

HTTP GET:

`http://informe.here?event=record.started&cause=RECORD_START&ref=1000&data=`

NOTE:Url to monitoring events can lead parameters, in this case the parameters event y cause will be add to the petitions, for example:

If urlEvent is as follows: `http://mylistenerurl.com?app=myapplication&debug=1`, the event will send in this way:

`http://informe.here.com?app=myapplication&debug=1event=record.started&cause=RECORD_START&ref=1000&data=`

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7. PLAY

It specifies the parameters of use for the play files. The command allows play files in the local file system (IVP) or files recorded for the session.

7.1.URL

To make a hangup must be invoked the URL through HTTP GET:

http://[host]:port/VAS/play

7.2.Parameters

sessionID:

Session identifier in IVP

name:

Indicate the name for the file generate. There are two options:

- Only the name, this indicate that file is a record for this session
- A path complete (/home/rv/), indicate a file in the local file system (IVP)

loop: (optional)

- true, the file is played in continous loop.
 - false the file is played once.
- If loop is not defined the default value is false.

stopdigit: (Optional)

Indicate the digit that stop the reproduction of the file.

ref: (Optional)

Referer, This field can be used by applications to send an identifier itself in the outgoing calls

dirinfo:

Indicates which receive Url events produced in the so-called, for HTTP GET method. This URL can take owners parameters, the system detects this event and builds the URL adapted

7.3.Responding to the call

The call may return the following values

400 BAD REQUEST:

Indicates that the parameters are not correct. You can miss a mandatory parameter or is not well-formed. Add description error.

503 SERVICE UNAVAILABLE:

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Indicates that have exceeded the resources of the service to make the call. Add a description of the error.

200 OK:

indicates that the hangup command has been received correctly.

7.4.Events

If the dirinfo parameter is specified, on the url be reported different events occurring in the play command. The notification occurs through HTTP GET method on the specified URL

The events are transfered as parameters in the call to the url, Fields that are received are as follows:

event:

Indicates the event occurred, it can take the following values:

- play.started** : start play.
- play.ended** : end play.
- play.error** : Failed to make play the file.

ref:

It is the parameter passed as a parameter ref. It is an identifier for the application to manage their own calls

cause:

Provides a description of the event occurred.

data:

Field for the extended data.

7.5.Example

Sequence of petitions - responses in a play command

Petition

HTTP GET:

http://[host]:[port]/VAS/play?sessionID=05643563&name=record1.3gp&loop=true&stopdigit=*&ref=1000&dirinfo=<http://informe.here>

RESPONSE:

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HTTP 200 OK

Events

In the example of record has entered the URL for listening events, so this example for events can be sending:

Begin record

HTTP GET:

`http://informe.here?event=play.started&cause=PLAY_START&ref=1000&data=`

NOTE::Url to monitoring events can lead parameters, in this case the parameters event y cause will be add to the petitions, for example:

If urlEvent is as follows: `http://mylistenerurl.com?app=myapplication&debug=1`, the event will send in this way:

`http://informe.here.com?app=myapplication&debug=1event=play.started&cause=PLAY_START&ref=1000&data=`